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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/635,611	08/07/2003	Yoshihito Asao	Q76555	9608
65565	7590	10/18/2007		
SUGHRUE-265550			EXAMINER	
2100 PENNSYLVANIA AVE. NW			NGUYEN, TRAN N	
WASHINGTON, DC 20037-3213				
			ART UNIT	PAPER NUMBER
			2834	
			MAIL DATE	DELIVERY MODE
			10/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/635,611	ASAO ET AL.	
	Examiner	Art Unit	
	Tran N. Nguyen	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11 and 15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 9/27/07 have been fully considered but they are not persuasive.

The applicant argues that in *the Vohlgemuth ref*, as shown in FIG. 3, material bridge 30 is connected at one end to the outer peripheral edge 16' of one sector 11 and has a middle portion 31 which deforms slightly away from its plane when adjacent edges 19' of the sectors 11' are brought together during winding onto a mandrel. However, Vohlgemuth does not disclose the claimed notch portions, which comprise a linear slit extending partially through the cylindrical iron core. In Vohlgemuth, the slit formed between the adjacent edges 19' of the sectors 11' extends completely through the core since the bridge 30 interconnecting the sectors 11' lies outside the outer circumferential face of the sectors 11'.

In response to this argument, in the embodiments shown in Figs 3-6, the Vohlgemuth core having notch portions, which referred as material bridge 30 in Fig 3, or bridge 40 in Fig 4, or bridge 50 in Fig 5, or bridge 60 in Fig 6. **These notches (30, 40, 50, 60) are formed materially and integrally as part of the core, and each of these notch portions comprise a linear slit in the radial direction, as shown in Figs 3-6, the slit does NOT cut through the core's portions (30, 40, 50, 60) to completely separate the core sectors (11'). Therefore, the slit is read to be partially extending through the core.** Whether the core's portions (30, 40, 50, 60) being outside the outer circumferential face thereof or not is irrelevant because the claimed language does not specifically recite the size/shape of the notches or the core's outer circumferential surface. In fact, the claimed language simply recites "*each of the notch portions*

comprises a linear slit extending partially through the cylindrical iron core in a radial direction”
(emphasis added).

Thus, the applicant’s argument is found not persuasive. The rejection is deemed to be proper and hereby maintained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. **Claims 11 and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Vohlgemuth (US Pub 2001/0015006)** in view of **Rich (US 4,102,040)**.

Vohlgemuth discloses a stator core comprising: a cylindrical iron core (12 in fig 1) including a plurality of slots (18’ in figs 1 and 3-6) provided around an inner circumferential face of the cylindrical iron core, and a plurality of notch portions (19’ in figs 3-6) are provided in an inner wall surface of only some, but not all, of the slots (figs 3-6); and obviously a coil disposed in the slots (not shown), wherein each of the notch portions comprises a linear slit extending only partially through the cylindrical iron core in a radial direction so that inherently the cylindrical iron core has a lower radial crushing strength at the notch portion than at other portions of the cylindrical iron core.

Regarding claim 15, **Vohlgemuth’s** cylindrical iron core is formed a helically wound band plate (as show in Fig 1) and including the linear slits which are abutted and aligned (as shown in figs 3-6).

Vohlgemuth substantially discloses the claimed invention, except for the limitations of a plurality of concave portions provided around an outer circumferential face of the cylindrical iron core.

Rich, however, teaches a cylindrical stator core (Fig. 17) with a plurality of concave portions (26 in fig 17) provided around an outer circumferential face, and iron stator cores were extremely well known at the time of the invention. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the core of Yamada in view of the concave portions as taught by **Rich**. Doing so would provide the stator core with mechanical means for reducing the weight of a stator core while also permitting effective cooling of the stator by the circulation of air through the concave portions (**Rich**, Col. 11, Lines 30-36).

Both **Vohlgemuth** and **Rich** respectively disclose magnetic stator cores, but did not specifically select iron material for the magnetic core. Nevertheless, iron is well known in the art for high magnetic characteristics (see cited prior art for evidence of iron cores are well known in the art.)

Thus, it would have been obvious to one of ordinary skill in the art to select iron as a suitable magnetic material for forming the magnetic cylindrical core. Doing so would provide a high magnetically qualified stator core and it has been held that one of ordinary skill in the art at the time the invention would choose a suitable and desirable material, because it would be within the general skill of a worker in the art to select a material on the basis of its suitability for the intended use as a matter of obvious design choice (In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960)).

Conclusion

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tran N. Nguyen whose telephone number is 571-272-2030. The examiner can normally be reached on 7:00 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. (Note: Use this Central Fax number 571-273-8300 for all official response.)

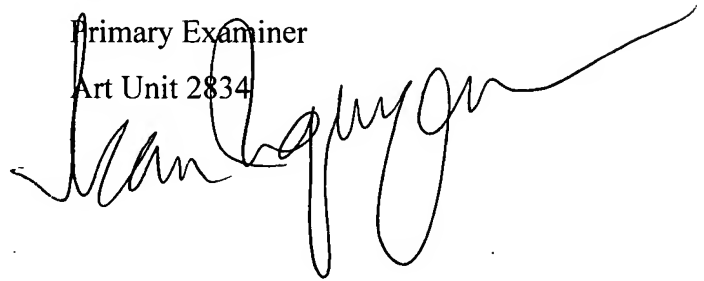
Do **not** use the Examiner's RightFax number without informing the Examiner first because, according to the USPTO policy, any document being sent via RightFax is treated as unofficial response and will not be officially dated until it is routed to the Central Fax.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tran N. Nguyen

Primary Examiner

Art Unit 2834

A handwritten signature in black ink, appearing to read 'Tran N. Nguyen', with a long, sweeping horizontal line extending to the right.